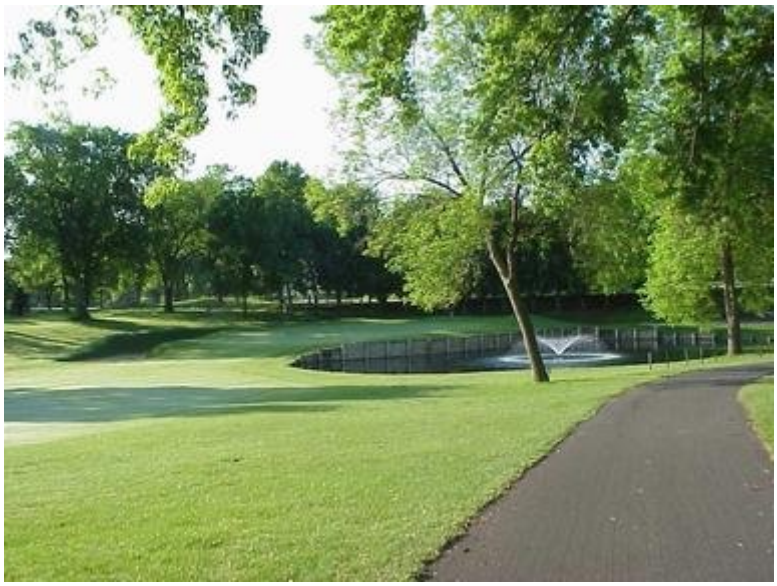
MAKING A RETAINING WALL
BY HOMEBOY

This is a tutorial covering a specific topic – how to make a retaining wall in a pond. This is a bit of an advanced technique and has been done on lots of courses out there in varying degrees of success, but the real challenge is to be able to make a straight-faced wall that has no wrinkles or spikes. That is the hard part.

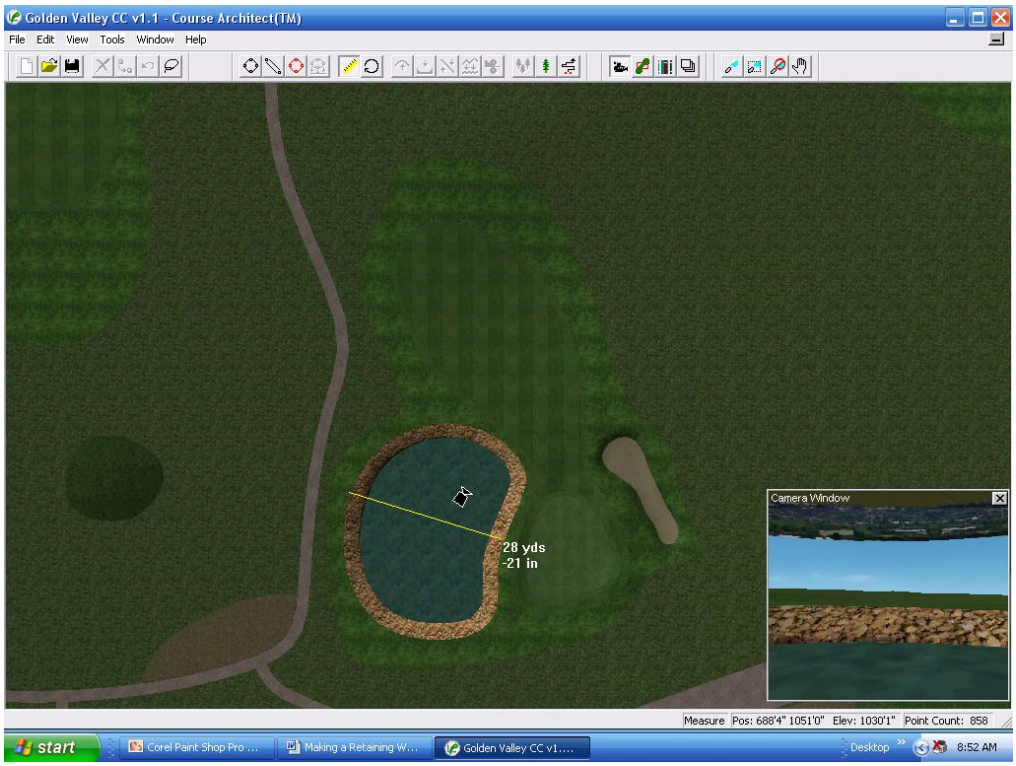
I offered to help out tay1062 (Terry) with this effect for the 17th hole on his course Golden Valley Country Club.

The goal is to modify his existing hole:

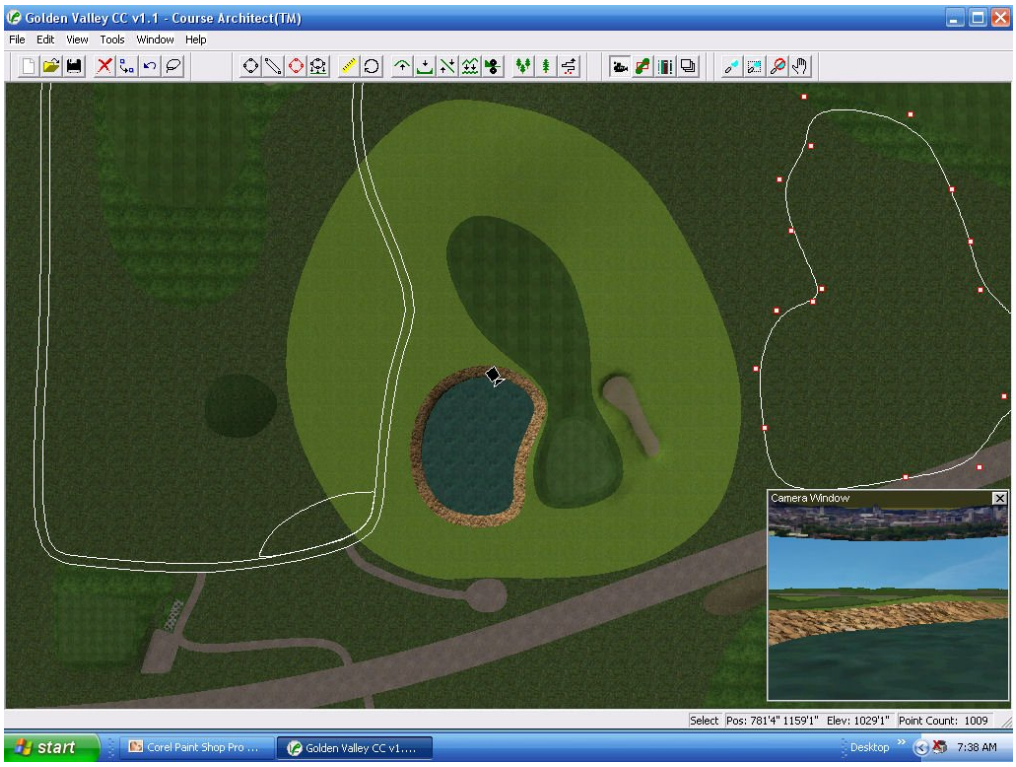
to achieve the look of a nice clean retaining wall as seen in this picture of the real hole:



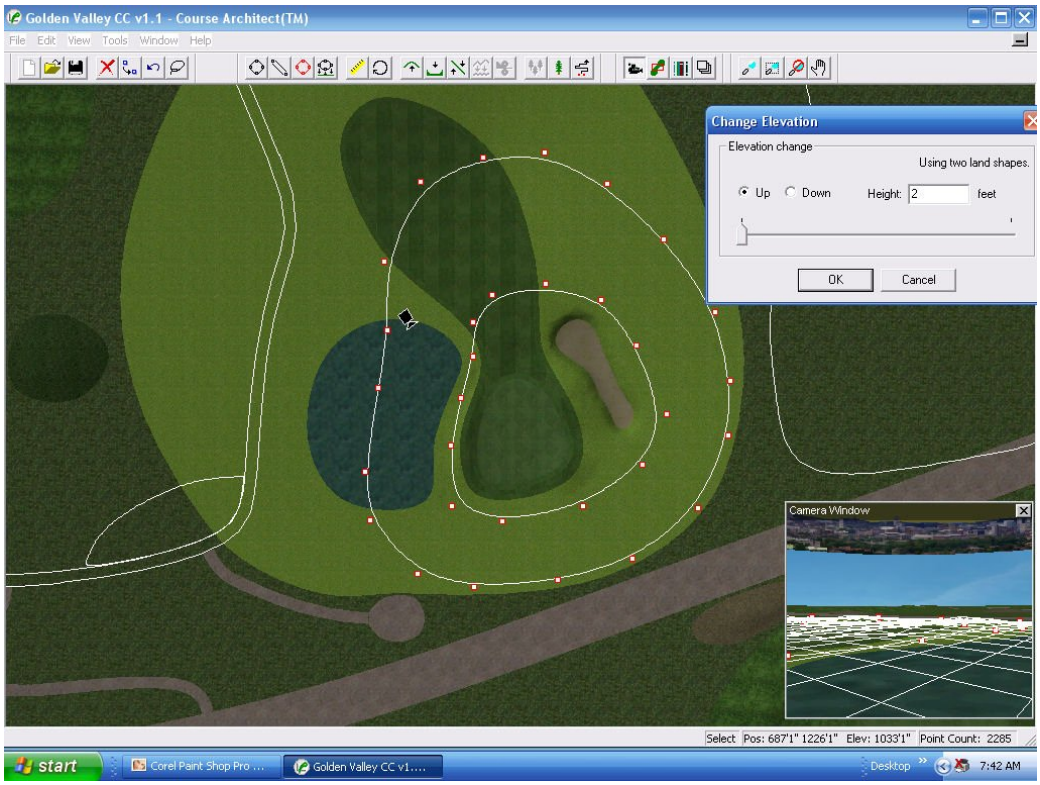
The most noticeable detail from the picture of the real hole is that the wall is significantly higher on the green side and then lower on the right-hand side. Looking at the existing tca file, it appears that the terrain surrounding the pond is basically level. That will mean that I will need to do some terrain work in order to raise the green side of the pond and to lower the side away from the green (the left side in the picture below).



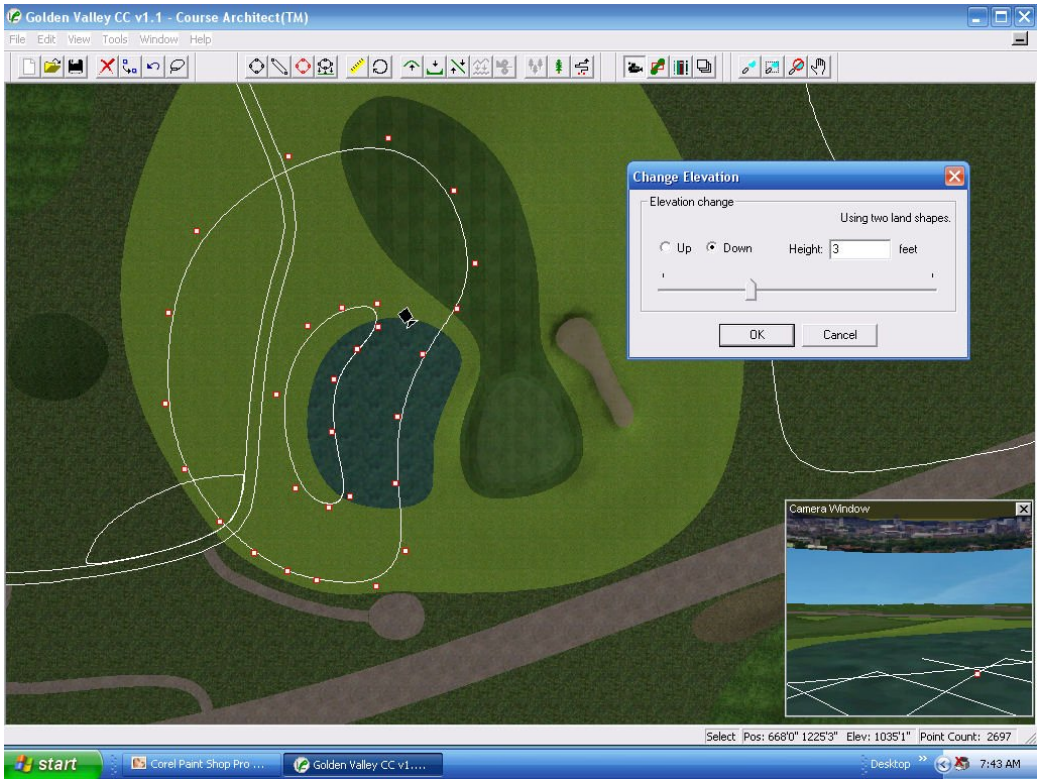
The first thing I do is lift the surrounding rough and cartpaths to get them out of the way. If I leave them there and try to make the design modifications, I will almost certainly get creases or other anomalies. So I lift them (but I don't delete them) and then, as I always do, I drop a brightly-colored temporary texture on which I will do all of my terrain work (1st cut Architect). I have also gone to the Layers Box and unchecked the objects box so that the objects (trees and bushes) are not visible. I do not want to inadvertently delete any of the existing plantings.



Next, I select the surrounding rock texture using “Use as Shape” and flatten around contour. Then I delete the rock shape. Now I start with the terrain work. I use the two shape method to raise the green by 2 feet. Note how the inside shape includes all of the green and the greenside bunker – that will preserve the existing contours in the green complex. I also flare out the shape far into the fairway so that there is a very gradual change in elevation.

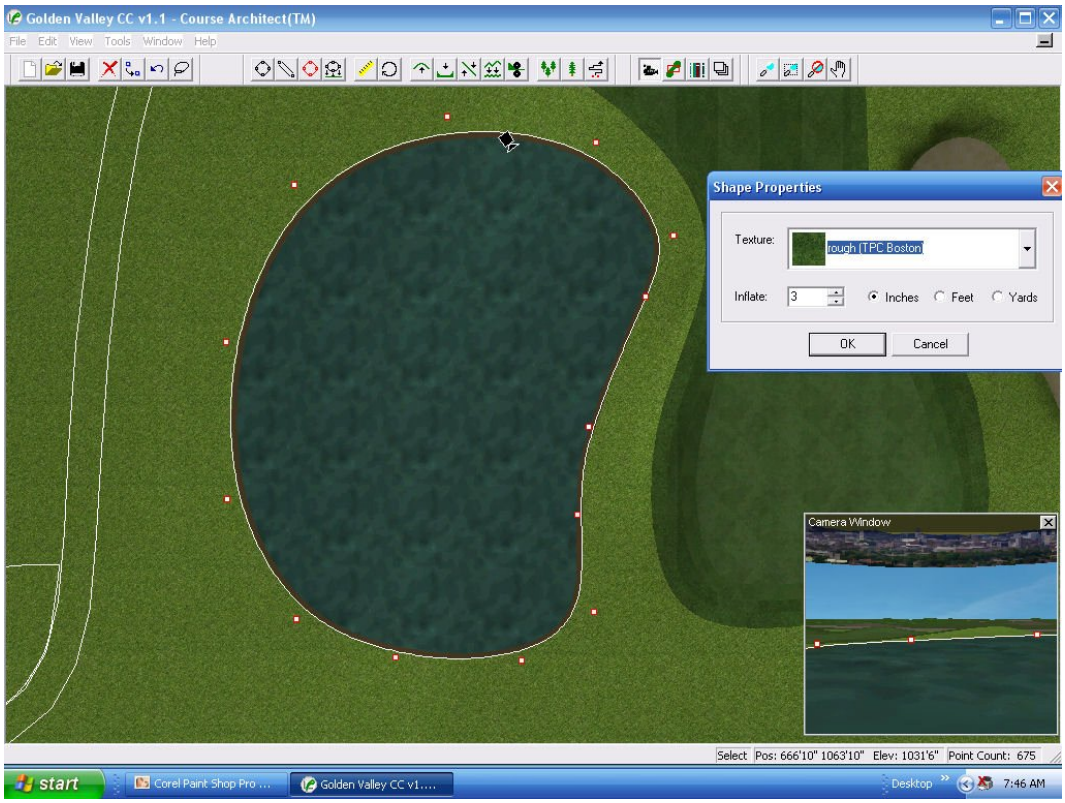


I then use the two shape method to lower the side of the pond away from the green by 3 feet. Again, I flare the shape out so that there is a gradual elevation change leading to the pond.

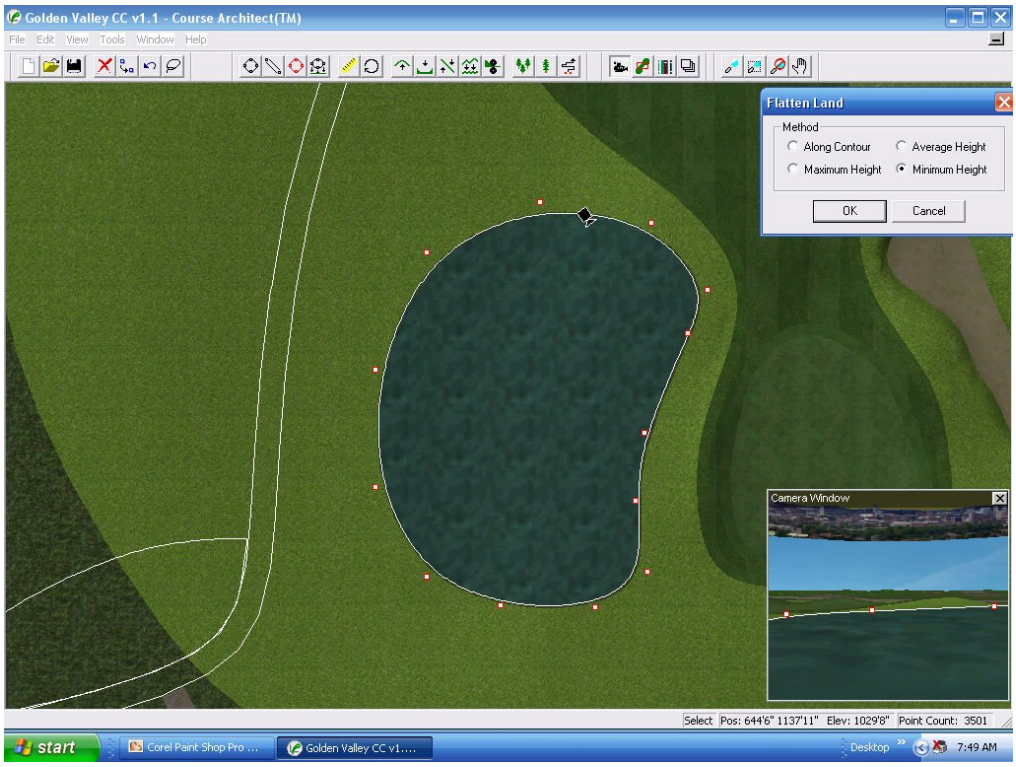


By making these elevation changes, I have now raised the green by 2 feet and made a noticeable change in elevation in the area surrounding the pond. This will make the retaining wall noticeably higher on the greenside of the pond just like in the picture of the real hole. I smooth around the pond just once at the second notch.

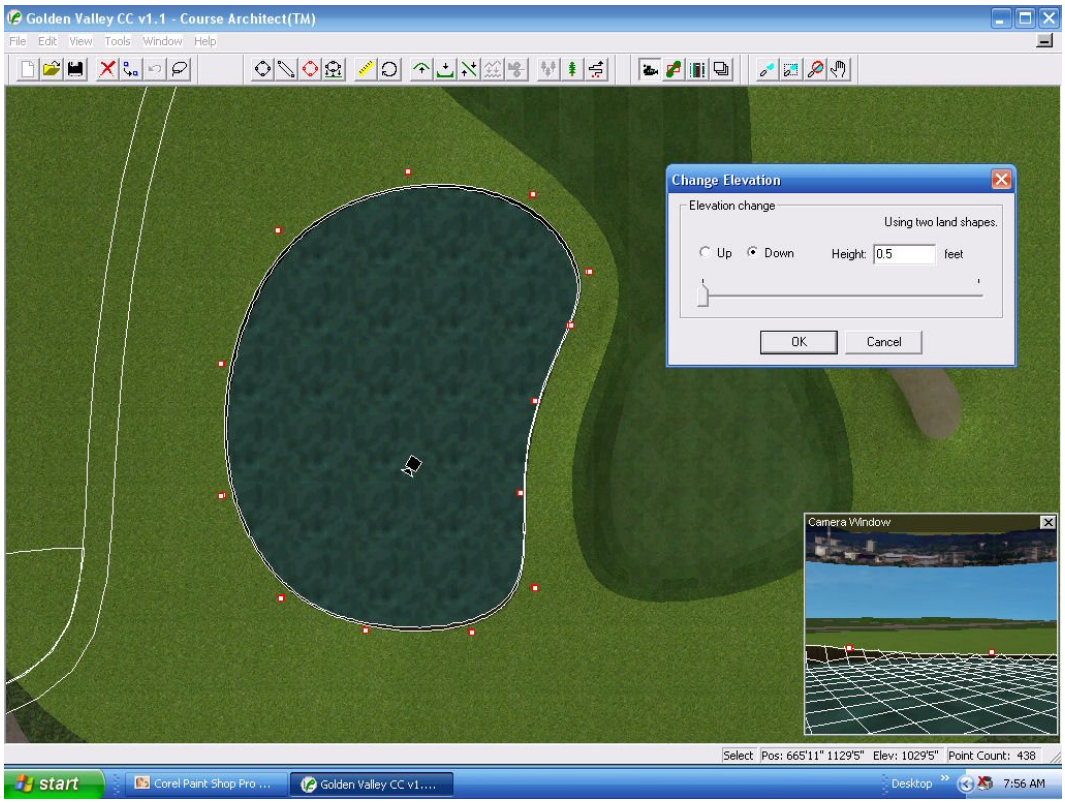
Now I use the pond shape and increase it by 3 inches. I change it to the desired wood texture (I've used the wood texture from CDA Library) and drop. The next step is the key: I use the wood shape and increase it by 3 inches, change it to the underlying rough texture (TPC Boston) and drop. This second shape is the key because it prevents buckling the surrounding area when I make the sharp change in the terrain by creating the steep wall.



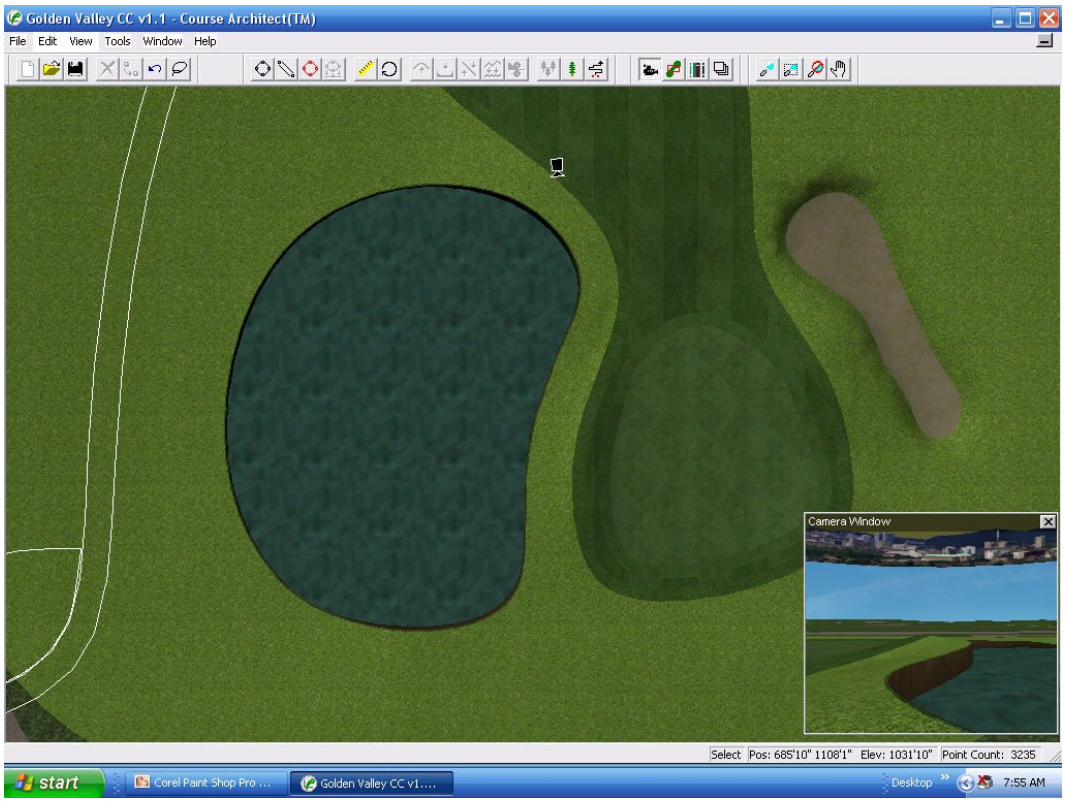
Next, I select the pond shape, increase by 1 inch (this ensures that I don't get any spikes) and flatten the water texture to minimum.



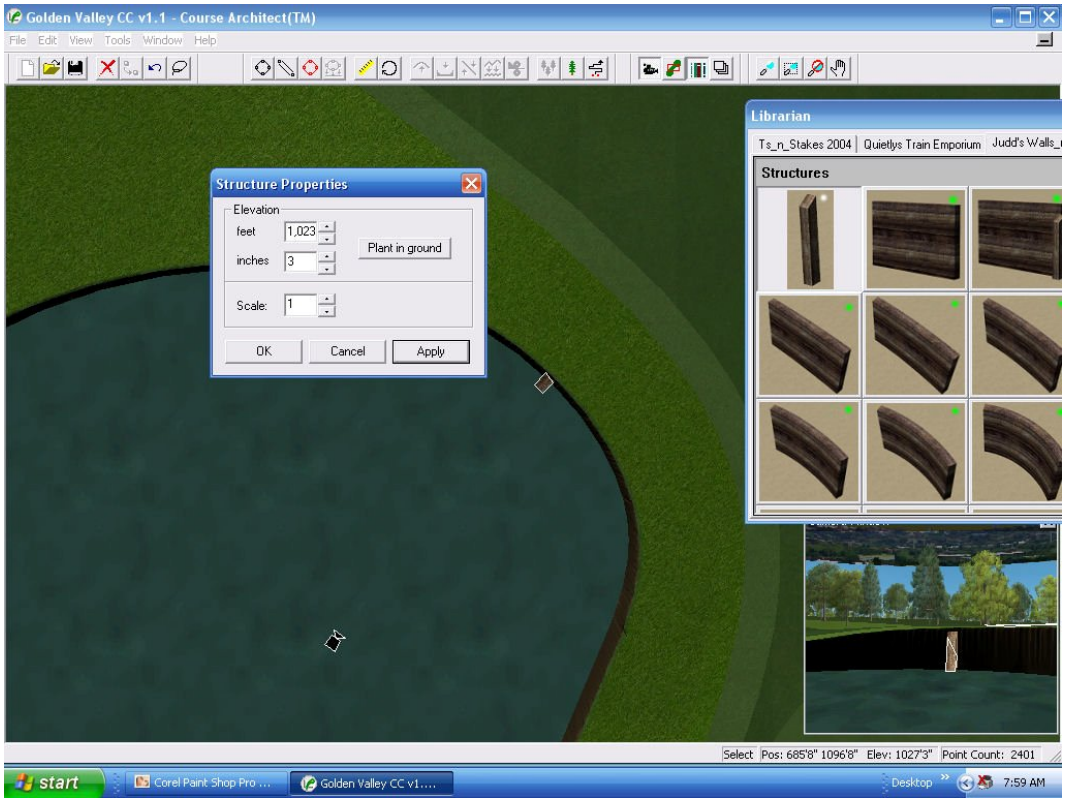
I then select the pond texture and also the wood texture and, using the two shape method, I drop both shapes .5 feet using the slope tool. Now the entire pond is below the level of the surrounding terrain.



This is how it looks in the camera view in the CA:



Then I zoom in on the pond and begin to place the wood posts from Judd's Walls n Stuff. This takes a lot of patience to continually rotate the posts slightly and to keep moving the camera around to be sure that the post is flush against the wall and is planted at a consistent height.



After some final optimizing and replacing the shapes I lifted, here is the finished product:

This is a great technique to use when the surrounding terrain varies in height and it won't look as good to use the level wood plank walls from Judd's Walls n Stuff. I used the same technique (in reverse) to raise the island green on Coeur d'Alene.